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# Coping with Chronic Stress

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## Coping with Chronic Work Stress

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### INTRODUCTION

Most people spend much of their waking lives involved in paid employment. Therefore, work is a context that demands our collective attention. For some time we have recognized that many individuals experience stress while engaging in paid employment. Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) estimated that at any point in time, one third of the working population experience chronic stress, and there is no reason to suspect that any reduction in this number of people has taken place.

This chapter provides an overview of the literatures on chronic work stressors and how individuals cope with work stress. There is a disturbing lack of connection between the study of these two intuitively linked topics. The manner with which individuals cope with work stress is rarely tied to any *specific* workplace stressor. Studies examining coping with work stress typically ignore the source of workplace stress, instead focusing on how coping efforts to deal with general "difficulties" at work alleviate worker strain. Therefore, we divide this chapter into several sections, beginning with an introduction to chronic work stressors. A

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section on coping with work stress follows, which includes a discussion of the recent literature attempting to incorporate the measurement of stressors, coping, and strain in a single study. These studies examine coping as a "moderator" of stressor-strain relationships. Finally, although the work context has the potential to contribute to positive mental health (Broadbent, 1985), it frequently fails to do so. Consequently, this chapter concludes with an examination of the literature on organizational efforts to alleviate the potentially harmful effects of chronic work stress. We argue that organizational interventions should focus not only on helping employees cope with existing workplace stressors, but also on taking steps toward the elimination of workplace stressors themselves.

### CHRONIC WORK STRESSORS

In this chapter, *stressors* are defined as objective environmental characteristics or events that are quantifiable and objectively verifiable (Pratt & Barling, 1988). *Stress* reflects the subjective interpretation or experience of stressors. That is, different people experiencing the same event will interpret or perceive it in different ways. *Strain* refers to the outcome of stress (e.g., psychosomatic complaints, depression, anxiety). Further, *chronic stressors* are of no fixed duration but are relatively enduring or repetitive in nature, and it is usually difficult to specify the exact time of their onset (e.g., Pratt & Barling, 1988). Chronic stressors can be distinguished from daily (common) and acute (uncommon) stressors, both of which begin at a specific time and last for a short period of time.

### Sources of Chronic Stress in the Workplace

Several influential models or descriptions of the sources of stress in the workplace have appeared (e.g., Kahn et al., 1964; Karasek & Theorell, 1990; Sauter, Murphy, & Hurrell, 1990; Warr, 1987). Although not focusing on work stress specifically, Hackman and Oldham's (1980) Job Characteristics Model also provides information about workplace conditions that can undermine well-being. Despite differences between these models, there is sufficient similarity in the workplace conditions identified to extract the core components of work stress from them. For the sake of simplicity, rather than suggesting the superiority of any one approach, we use the model provided by Sauter et al. (1990) as our framework for discussing sources of chronic stress in the workplace.

### COPING WITH CHRONIC WORK STRESS

Sauter et al. (1990) list six workplace factors most likely to affect workers' mental and physical health: work scheduling, role stressors, career security factors, interpersonal relationships at work, and job content and autonomy. We will discuss each of these factors in turn.

**Work Scheduling.** Two aspects related to work scheduling can be experienced as stressful and result in strain. First, the pace at which work takes place must be considered. Second, the scheduling of work must be considered: As noted elsewhere, if working unusual shifts (e.g., "graveyard shifts") was not potentially harmful, why would additional compensation be offered (Barling, 1990)? When rotating shifts are necessary, stable, predictable, and forward rotating (day-to-night) shifts are the most beneficial (Sauter et al., 1990).

**Role Stressors.** Role stress theory (Kahn et al., 1964) is probably the earliest attempt at an approach to occupational stress. There are several types of role stressors. Role ambiguity refers to a lack of adequate guidelines (e.g., job description) to provide sufficient knowledge of what is expected for adequate performance at work. Role conflict emanates from incompatible job-related demands, such as conflicting demands and expectations from different superiors. Role overload refers to having too much to do or not enough time to complete otherwise reasonable assignments. Role overload can be either quantitative (the amount) or qualitative (the difficulty) in nature. Finally, role underload, which arises from not having enough to do or not being challenged by one's work, can also be experienced as stressful.

**Career Security.** Two components related to one's career are potentially stressful: Insecurity about one's current job can be a major stressor and has been linked to important outcomes (e.g., Barling, 1990), and from a more long-term perspective, individuals want to know that they have a career path within an organization (Sauter et al., 1990).

**Interpersonal Relationships.** People go to work for more than just financial reasons, and the potential benefits of the quality of interpersonal relationships at work can emanate from interactions with subordinates, peers, customers/clients, or supervisors. The social context in which work takes place can provide meaning to work. Indeed, Jackson (1988) has shown that the loss of the social contacts and support available at work is one of the factors associated with the negative effects of unemployment. Sauter et al. (1990) state that work relationships can either buffer or exacerbate the adverse effects of exposure to job risk factors.

**Job Content.** According to Hackman and Oldham (1980), three critical psychological states must be present in order for a person's work to be motivating and satisfying:

1. A feeling of personal responsibility for one's work that emanates from autonomy concerning work pace and procedures
2. Experiencing one's work as meaningful, stemming from opportunities for skill variety and task identity and from believing that the work affects other people
3. Having knowledge of the results of one's performance through feedback from the job itself, supervisors, and peers

Warr (1987) extends this model and suggests that there are nine principal job features related to personal and occupational mental health. While Hackman and Oldham (1980) only deal with intrinsic characteristics (i.e., relating to the job itself), Warr (1987) adds four extrinsic factors that affect work outcomes: pay level and pay equity, physical security (i.e., workplace health and safety), social contact (which offers support), and holding a valued social position.

**Autonomy.** Perhaps the most influential theory concerning autonomy is the Job Strain Model (Karasek & Theorell, 1990). According to this model, the influence of work demands on health are moderated by the degree of control individuals have over their work. Job-decision latitude reflects the degree to which a job provides substantial freedom, independence, and discretion to employees in scheduling their work and in determining the procedures used to carry it out. It is only when *high* work demands are combined with *low* decision latitude or control over one's work that health and well-being are threatened. Sauter et al. (1990) suggest that personal control is the determining factor in generating any health consequences of work demands.

Although this section has illustrated chronic work stressors, it should be kept in mind that many of the factors listed here can be experienced as daily or acute stressors under certain conditions, an issue to which we will return later.

### Contemporary Sources of Chronic Work Stress

In addition to these core workplace stressors, there are also workplace stressors that are unique to current economic and social conditions. Hartley (1995) argues that people and organizations are currently dealing with unprecedented levels of change in the workplace. For example, there have been large changes recently in the types of jobs, job

conditions, job holders, and relations between employer and employee that exist at work. Four contemporary workplace stressors may affect employees' physical and mental health: uncertainty, technological advances, the distribution of work, and current unemployment levels.

**Uncertainty.** Changes in the economic environment suggest that organizations and employees will be living with much higher levels of uncertainty than in the recent past. In fact, the Secretary of Labor for the United States, Robert Reich, calls this an "insecure age" for workers (McNamee, 1994). Research has only recently begun to address many of these issues, and currently little is known about the consequences of these changes for individuals, organizations, and employment relations (Hartley, 1995). Although it seems reasonable that these changes and high levels of uncertainty in the workplace are likely to affect individual well-being (e.g., psychological and physical) as well as employee-organizational linkages, the precise effects of change and uncertainty have yet to be determined.

**Technological Advances.** The introduction of computers into the work environment on a large scale has also changed the way work is conducted and monitored (Schein, 1980). Anyone who touches a keyboard can now potentially be monitored. A computer can monitor every worker every second without the disruptive or expensive need of a supervisor. The frequency and constancy of this monitoring has been associated with stress and strain (e.g., Lund, 1992).

**Distribution of Work.** With the push for North American firms to be more competitive in a global marketplace (Appelbaum, 1992), two trends concerning the distribution of work are emerging, and both can be stressful for workers. First, part-time employment has expanded dramatically in recent years. It is estimated that more than 30% of Canadians now work in the contingent labor force (Gibb-Clark, 1992), and "involuntary" part-time workers (those wanting full-time hours) account for most of the growth in part-time work in the United States since 1970 (Tilly, 1992). In Canada, it is estimated that one in three part-time workers is involuntarily employed on a part-time basis (Jackson, 1993). Thus, the status of one's job can be a chronic stressor in some cases. Also, many part-timers are exposed to poor quality (e.g., routine) jobs in the service sector, an area where workers are already considered to be at increased risk for psychological disorders (Sauter et al., 1990).

Second, involuntary employment extends to full-time or overtime employment. In the auto sector in Canada, workers are currently "work-

ing near-record amounts of overtime" (Daly, 1994, p. 36). Some companies choose to work their existing staff longer hours (an additional 8 hours per week) to control for cyclical fluctuations in work demands and to avoid increased payroll taxes (Daly, 1994; Hancock, 1995). Depending on whether workers are *involuntarily* employed on a part-time, full-time, or overtime basis, there are potential adverse consequences for both the worker and the organization.

**Unemployment.** Current unemployment rates in North America can also be a source of chronic work stress for many people. Although the effects of unemployment have been known for some time (e.g., Jahoda, Lazarsfeld, & Zeisel, 1933), we are only now beginning to see the effects of others' unemployment on the "survivors" work-related attitudes. For example, Brockner (1988) documents the stress in a postlayoff work environment, where workers are uncertain about their own job security and where the anger associated with many layoffs can be a significant chronic stressor. In turn, the onset of stress typically leads to numerous significant changes in work attitudes and behaviors.

### Perceptions of Workplace Stressors

In recent years it has increasingly been recognized that different rules may apply within the same organization, depending on employee demographics. For example, employment conditions for women and minorities in North America have typically been quantitatively and qualitatively inferior to those of white males. These differences are often unrelated to individual skill or ability. Many female clerical workers and minorities in blue collar jobs are plagued by low promotion rates, short job ladders, and low ceilings in their job categories. Even for employees who do manage to rise above clerical or blue collar ranks, their past positions and present skills may make them suitable for the job currently held, but do not constitute adequate preparation for future jobs (Kanter, 1977). Women may also face unique discrimination in terms of promotional policies and possibilities (Swimmer, 1990). For example, pregnant women can suffer unique discrimination and stress in the workplace (Halpert, Wilson, & Hickman, 1993). To the extent that these types of environmental barriers exist in a given organization, they are likely to constitute critical chronic work stressors for certain groups of individuals.

In addition to this it should be noted that the chronic stressors in a given organization are not always readily apparent. For example, in a study of an all-male sample of police officers, the potential for physical

injury was not the major stressor (Kroes, Margolis, & Hurrell, 1974). Instead, organizational and bureaucratic problems (e.g., court leniency) were the most salient stressors for these officers. Thus, in researching the sources of chronic work stress it is critical to recognize the variety of stressors individuals may perceive to be present in their environment.

### Outcomes of Workplace Stressors

The effects of chronic workplace stressors can be serious. Numerous sources document that these stressors are associated with detrimental psychological, psychosomatic, and organizational outcomes. For example, lack of autonomy or input into decision making concerning one's job has been found to result in emotional strain, lowered self-esteem, job dissatisfaction, increased tension, anxiety, depression, irritation, and somatic complaints (Sauter et al., 1990; Wall, Corbett, Martin, Clegg, & Jackson, 1990). Nord (1977) states that worker alienation is another result of jobs lacking autonomy, and low job-decision latitude has even been implicated in increased mortality among workers (Astrand, Hansson, & Isacson, 1989; Theorell, Perski, Orth-Gomér, Hamsten, & de Faire, 1991). In contrast, increasing worker control over their jobs has been found to improve work motivation, performance, job satisfaction, and mental health, as well as reduce employee turnover (e.g., Wall & Clegg, 1981; Wall et al., 1990).

Role conflict, role ambiguity, and role overload have also been identified as three key factors contributing to job stress (Kahn, 1980; Kahn et al., 1964). All three role stressors are clearly associated with symptoms of psychological and physiological strain. Some of the consequences of the three role stressors include increased job-related tension, decreased job satisfaction, less organizational confidence, decreased satisfaction with work relationships, decreased self-esteem, and increased anxiety and depression (Kahn, 1980). Role ambiguity and role conflict are also negatively related to commitment and involvement among workers (Fisher & Gitelson, 1983). Chronic stressors have also been related to serious physical outcomes. For example, workplace violence has been linked to severe job insecurity, poor interpersonal relations, and poor supervision (e.g., Thompson, 1994), and it has long been believed that suicide is far more likely for those in stressful occupations (Blaghy, Osterud, & Josslin, 1963; Rose & Rosow, 1973). Interestingly, interpersonal relationships may either buffer or exacerbate adverse effects from exposure to job risk factors (Sauter et al., 1990). In terms of other contemporary stressors, the outcomes are equally serious. Garson (1989) notes that "monitored clerical workers have the highest rate of stress diseases:

heart attacks, high blood pressure, muscle strain" (p. 113). Further, Carlson documents cases where the implementation of computer technology and the increased control it allows caused increases in absenteeism and tardiness, "stress-related" illnesses (as indicated on medical reports), resignations, and early retirement. Thus, advances in the "information age" can also exact a high cost to workers in some cases.

The preceding list of outcomes of chronic workplace stressors is not meant to be exhaustive, but rather to give the reader a sense of how numerous and varied such outcomes can be. Finally, before leaving this issue it should be noted that the potential for negative outcomes from job stressors can occur in any occupation; the preceding outcomes are not limited to jobs where such stressors are more apparent. For example, research has found that although police ranked third among 130 occupations in suicide rates, they were behind laborers and house painters in this respect (Fell, Richard, & Wallace, 1980). Thus, it must be acknowledged that not only those working in "dramatic" jobs can suffer from the effects of chronic work stress.

### Methodological Problems in Connecting Chronic Stressors to Specific Effects

Specific problems in studying the nature and consequences of chronic work stress exist; for example, when does an acute stressor actually become a chronic stressor? *The Diagnostic and Statistical Manual of Mental Disorders* Third Edition, Revised (DSM-III-R) defines an acute stressor as any event continuing for 6 months or less (American Psychiatric Association, 1987). There are suggestions, however, that acute stressors have a far shorter duration than this (e.g., Pratt & Barling, 1988). Thus, the point in time after which acute stressors should be viewed as chronic remains unclear. Only through simultaneously considering all three dimensions alluded to earlier (the duration of the stressor, the specific time of onset of the stressor, and the likelihood of recurrence of the stressor) can acute and chronic workplace stressors be differentiated. Another difficulty lies in the fact that the same event can be a chronic work stressor in one context but may be an acute stressor in another context (Barling, 1990). For example, commuting to work could be a chronic stressor for those who commute daily, but it could be an acute stressor for those who commute only occasionally.

A second challenge associated with tying particular outcomes to particular chronic work stressors lies in the difficulty associated with choosing the appropriate temporal lag between measuring the stressor and the strain associated with it (Barling, 1990). For example, daily

stressors (those with short duration, specific time of onset, and high likelihood of recurrence) have been found to have same-day effects on individuals. In contrast, psychological strain following a chronic stressor has been found to last as long as several years (Barling, 1990). If it is not clear whether a workplace stressor is acute or chronic, then the prediction of how and when the strain will occur, as well as how long it will last, is complicated. In addition, it is possible that different coping techniques will be differentially effective with acute and chronic stressors. Another difficulty in identifying adverse outcomes from particular chronic job stressors lies in the fact that we are still unclear as to whether and how different types of stressors interact (Barling, 1990). For example, commuting problems could exacerbate ongoing conflict with one's spouse, as well as being inherently stressful.

### COPING WITH CHRONIC WORK STRESS

The previous section provides evidence of the variety of stressors to which individuals are exposed in the workplace. Individuals have developed many ways to deal with these stressors. However, as indicated in the introduction, the literature examining coping with workplace stressors rarely links coping strategies to specific workplace stressors. In fact, usually respondents are asked to report how they handle general "difficulties" at work or to think of a specific stressful event and report how they "coped" with it. That is, when listing the coping strategies they used, individuals could be thinking of very different aspects of their workplace, as little effort is made to ensure that all individuals are focusing on the same specific type of work stressors. Studies measuring coping in this manner typically proceed to explore the impact of reported coping on measures of strain or work satisfaction.

### The Measurement of Coping

In this chapter, *coping* is defined as the cognitive and behavioral efforts individuals undertake to manage those internal and external demands that tax or exceed their personal resources (Lazarus & Folkman, 1984). Perhaps the best way to introduce the variety of different coping strategies is to discuss first how coping with work stress has been measured. Coping as a function of personality traits such as type A personality or personality hardness will not be examined. Cox and Ferguson (1991) and Parkes (1994) review the results of studies that explore the effects of personality on coping with work stress.

Researchers have measured coping efforts in a number of ways, most frequently using items that reflect Lazarus and his colleagues' widely acknowledged problem- and emotion-focused coping dichotomy. Problem-focused coping refers to efforts to act on stressful situations by altering behaviors or the environment. Emotion-focused coping refers to strategies individuals use when they seek to manage emotions resulting from stressful incidents. A third factor, appraisal-focused coping, involves cognitive strategies such as denial or redefinition of the situation (Moos & Billings, 1982). In the organizational literature, there is some concern that such global classifications of coping are insufficient or too broad, because subdimensions of these categories have been found (see reviews by Cox & Ferguson, 1991; Dewe, Cox, & Ferguson, 1993; Latack & Havlovic, 1992). For example, existing measures of coping have been analyzed using factor analytic techniques to extract additional coping dimensions. The widely used Ways of Coping Checklist (Folkman & Lazarus, 1985) contains eight factors: confrontative coping, distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, painful problem solving, and positive reappraisal (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Amirkhan (1990), Ender and Parker (1990), and Latack (1986) have developed new, theoretically based measures of coping that have three underlying factors (Dewe et al., 1993; Newton, 1989). Consistent with previous theory, two of the three factors were problem-focused, or direct action, approaches and emotion-focused strategies. The third factor contained avoidance or escape strategies such as withdrawal or ignoring the situation.

Studies that do not rely on previous theory to develop coping dimensions are less common. For example, Dewe and Guest (1990) asked several occupational groups to answer open-ended questions about how they coped with an incident they regarded as stressful. Content analysis of the responses revealed five coping components consistent across the different occupations: rational task-oriented behavior, emotional release, distraction, passive rationalization, and social support. Similarly, Newton and Keenan (1985) asked recently employed engineering graduates how they had "handled" a recent stressful situation. Content analysis resulted in five classes of coping: talking to others, direct action, preparatory action, withdrawal, and the expression of helplessness or feelings of resentment. These studies try to align themselves with previous research by placing, perhaps forcing, their coping factors into an existing framework such as problem- or emotion-focused coping categories (Dewe et al., 1993).

In summary, research efforts have created different coping mea-

sures that contain an assortment of different coping strategies. Problem- and emotion-focused strategies remain dominant, and strategies involving escape from or avoidance of stressful situations are also commonly reported. Latack and Havlovic's (1992) framework to categorize coping measures helps to illustrate these tendencies. Following convention, strategies are first identified as either problem- or emotion-focused, and then categorized as either cognitive or behavioral. Cognitive and behavioral distinctions are further classified as being control- or escape-oriented. Finally, cognitive strategies imply a solitary approach, but behavioral strategies can be additionally identified as social or solitary.

Despite the qualification made earlier, some studies do include a measure of work stressors and attempt to relate the stressor or stress level to the coping strategies that are employed. Our discussion of coping with work stress briefly reviews these studies, and then examines the more typical approach that focuses on the relationship between coping strategies and strain outcomes.

### **Workplace Stressors and Coping**

When do individuals use specific coping strategies? As indicated, research rarely links specific coping efforts to specific workplace stressors. It is more common for studies to focus on general work stress and to report such findings as the use of more emotion-focused coping (Bhagat, Allie, & Ford, 1991) and wishful thinking (McDonald & Korabik, 1991) among those who report high levels of such general work stress than among those reporting low levels. The two groups do not differ in their use of problem-focused strategies. One of the few studies examining coping responses to specific chronic work stressors found that greater role conflict was associated with more escapist coping strategies, whereas more role ambiguity was associated with a decline in coping strategies involving direct action (Havlovic & Keenan, 1991). These studies highlight a trend revealing that individuals in high-stress environments use emotion-focused or distancing coping strategies more than do those in low-stress environments. Additionally, greater stress may reduce the use of problem-solving activities (Havlovic & Keenan, 1991). Perhaps greater stress makes individuals have "more reason to wish the stressful situations would go away" (McDonald & Korabik, 1991, p. 196), or individual efforts may simply not be enough to resolve occupational problems (Menaghan & Merves, 1984).

Research examining how people cope with work stressors has also measured perceptions or appraisals of the stressor rather than measuring the stressors per se. The impact of this appraisal on the choice of

coping strategy is then studied. For example, Dewe (1989) found that, when asked to describe a stressful event, participants were able to appraise the event's intensity, frequency, and meaning (impact). These types of appraisals have been found to contribute to an individual's choice of coping strategy (Dewe, 1989; Newton & Keenan, 1985; Schwartz & Stone, 1993). Schwartz and Stone (1993) showed that appraisal of an event's severity was a significant predictor of the use of four coping strategies: catharsis, social support, relaxation, and direct action. An event's severity rating involved the event's degree of undesirability and meaningfulness, as well as the degree to which it would change/stabilize one's lifestyle. Readers interested in individuals' appraisals of work stressors should refer to a series of studies conducted by Dewe (1991, 1992a, 1992b, 1993). Dewe has developed scales designed to measure Lazarus and colleagues' concepts of primary and secondary appraisal in a work environment.

The question remains as to whether or not any one coping strategy is more successful in reducing the negative effects of stress. Are the emotion-focused strategies used in high-stress environments appropriate? Next we consider several studies that have examined the effects of coping strategies on employee strain.

### Strain and Coping

Decker and Borgen (1993) investigated coping strategies in a group of university employees. After statistically accounting for the effects of work stressors on individual strain, they found that a general increase in coping involving recreation, self-care, social support, and rational/cognitive strategies significantly reduced the amount of perceived strain. Therefore, the more coping strategies they used, the less strain these employees experienced. However, Menaghan and Merves (1984) studied how a large panel of employed Chicago area adults dealt with work "difficulties" and found that the use of the emotion-focused strategies of restricting one's expectations of work satisfaction and viewing one's work situation pessimistically was associated with greater feelings of job strain. Here, an emotion-focused coping strategy increased rather than decreased strain. Thus, the relationship between different coping strategies and strain is not clear-cut.

In another study, newly employed engineering graduates were asked to think of a recent stressful experience at work and describe how they "handled" it (Newton & Keenan, 1985). The graduates' feelings of job-related anger and frustration were reduced by the use of such reparatory actions as getting information or seeking an alternative ap-

proach, whereas increases in these feelings were associated with the use of coping strategies involving acceptance of the situation or expressing resentment. In the case of the young engineers, problem-focused coping strategies reduced strain, but more palliative strategies increased strain. Similarly, greater use of active problem solving at work by nurses was related to fewer health complaints and greater job satisfaction, whereas greater use of palliative coping strategies was associated with reporting of more health complaints (Boumans & Landeweerd, 1992). Further, problem-focused coping strategies used by teachers to deal with "difficulties" at work was related to job satisfaction and feelings of accomplishment (Bhagat et al., 1991).

Violanti (1992) studied the coping strategies of police recruits undergoing training. He found that lower levels of strain were associated with using planful problem solving as a coping strategy, as well as distancing strategies. Higher levels of strain were related to escape/avoidance strategies, but were also associated with the use of self-control strategies. Thus, in the case of police recruits the choice of coping strategy is not a simple one. Problem- and emotion-focused coping strategies can either increase or decrease strain. Violanti explains these findings in terms of the situation. Recruits are in a very controlled environment. If planful problem solving is not possible, the use of a distancing strategy may aid the recruit in dealing with the stress engendered by a highly controlling environment without physically removing the recruit from the situation he/she must face. This would not be the case with escape/avoidance strategies. The use of self-control as a strategy may also be counterproductive because recruits could isolate themselves from their peers and thus contravene the norm that they should work cooperatively. When control is possible for police recruits, problem-focused approaches reduce strain, but when control is not possible, emotion-focused distancing reduces strain (Violanti, 1992).

Similarly, Palmer (1983) studied emergency medical technicians who are constantly in contact with people who are injured and/or dying. This offers an extreme example of people in occupations where control is frequently lost. Palmer found that the technicians had developed unique and apparently functional coping strategies. For example, humor was used as an escape or safety valve, whereas psychological distancing was accomplished through technical language (e.g., death becomes a signal 27) and rationalizations such as "you lose a few, but without us none would survive."

It should now be evident that few judgments can be made about the general effectiveness of any single coping strategy. Specific occupations and/or organizational situations are likely to dictate the most effective

copied strategy for employees. Violanti's (1992) study suggests that problem-focused approaches are the most effective coping strategies in environments where individuals have control. Perhaps the evidence that high-stress environments lead to greater use of emotion-focused coping reveals more about the lack of control individuals have over their environment than their ability to cope. If individuals cannot change the stressors in their environments via problem-focused coping, they must attempt to manage their perceptions of it via emotion-focused coping. The question that remains is how long such strategies will keep strain at a minimum and employees productive.

### Coping as a Moderator

Several researchers have recently attempted to investigate stressors, coping, and strain in the same study. These studies of the moderating effects of coping on the stressor-strain relationship examine how various coping strategies alter the effect a stressor has on an individual's reported strain. However, as is the case for most of the previously described studies, the majority of examples adopt a general measure of work stress, asking respondents to describe how they deal with "difficulties," or "problems," at work. Typically, these moderator studies find only a few of the possible moderating relationships to be significant, and there are numerous variations in the coping strategies and strain outcome variables. For example, Bhagat et al. (1991) studied general organizational stress in teachers. Organizational stress involved ratings of the stress associated with events such as excessive responsibility for students, equipment shortages, and discipline. The study found that problem-focused coping strategies directed at work "difficulties" moderated the relationship between organizational stress and illness, as well as organizational stress and burnout. That is, those individuals using problem-focused coping strategies experienced less adverse effects of occupational stress. Emotion-focused strategies moderated the relationship between organizational stress and depersonalization. Those using emotion-focused coping strategies to combat organizational stress experienced greater depersonalization. However, many more possible moderating relationships were not found to be significant.

Greenglass and Burke (1991) examined the moderating effects of coping among school board employees. During "times of work stress," the coping strategies of internal control and preventive coping (e.g., plan/prepare for the future) moderated or buffered the impact of overall work stress on both anxiety and depression. As was the case in Bhagat et al. (1991) study, these are only two of a large number of moderating relationships that were examined.

Other researchers have found no significant moderating effects of coping efforts on the relationship between general work stress and strain. Frone, Russell, and Cooper (1991) asked a random sample of household residents about their active coping styles. They found that the use of active coping when approaching problems did not moderate the relationship between a general measure of job stress and both depression and somatic symptoms. Professional human service workers were asked to report how they coped with the "stress and strain of their jobs" (Shinn, Rosario, Morch, & Chestnut, 1984). Neither problem- nor emotion-focused coping consistently moderated the relationship between work stress and strain.

These examples exemplify the variety of coping strategies and outcome variables used in such studies, as well as the few moderating relationships found to be statistically significant. Therefore, generalization and practical application of the results of these studies are premature. Greater precision in these studies, with *specific* coping strategies being tied to *specific* stressor-strain relationships, has been called for (Parkes, 1994). For example, Boumans and Landeweerd (1992) found that the use of active problem solving by nurses moderated the relationship between the specific stressor of work complexity/difficulty and job satisfaction. Social support from people at work buffered the relationship of job satisfaction with each of the specific stressors—work pressure, lack of autonomy, and lack of promotion. Social support also buffered the relationship between lack of autonomy and health complaints. Future research must attend to specific stressor-strain relationships before any practical use can be made of these studies.

### Further Methodological Problems in the Study of Coping

Several other conceptual and methodological issues need to be addressed before it is possible to apply the results of research on coping with chronic work stress. First, the difference between a coping style and a coping strategy must be recognized. Second, coping and its effectiveness must be gauged separately.

Coping *styles* are dispositional in nature. A coping style addresses the typical coping patterns of individuals or what they usually do in response to stress. Dewe and Guest (1990) assessed coping style when they asked, "If, like most people, you occasionally get particularly fed up with your job and feel tense and frustrated, how do you cope?" (p. 139). In contrast, coping *strategies* are situation-specific. Typically, respondents are asked to record an event they found stressful and then indicate how they reacted to that specific event.

The distinction between coping styles and coping strategies is well

recognized (Dewe et al., 1993; Latack & Havlovic, 1992; Newton, 1989; Parkes, 1994). This distinction is critical in the study of chronic work stress because measures of coping styles may address chronic work stressors better than measures of coping strategies. Newton (1989) believes that individuals give greater consideration to ongoing chronic stressors when reporting their coping style. For example, when people are asked about how they coped with general difficulties at work, they will first consider more "typical" workplace stressors rather than an isolated incident. Measures of coping strategies, where individuals choose a specific single event they found stressful, may better reflect an isolated incident. Consequently, these strategies are more likely to address acute workplace stressors. Thus, researchers investigating how people cope with chronic or acute workplace stressors have an urgent need to make the distinction between coping styles and coping strategies, but this need is driven by the way researchers measure coping. They often do not know to what stressors participants are recording their reactions. If researchers phrased their questions more directly, the issue of how coping styles or strategies reflect chronic and acute stressors will be moot. For example, as we have suggested, participants should be asked how they reacted to specific stressors, such as role conflict or job insecurity. The issue would then be whether or not role conflict or job insecurity is a chronic or acute stressor in a given work environment. Of course, this issue has its own methodological problems, as indicated in the previous section on chronic work stressors.

Finally, coping *per se* and coping effectiveness are often conflated in the coping literature (Dewe et al., 1993). Latack and Havlovic (1992) noted that "job-related coping items should allow for independent assessment of coping and coping effectiveness" (p. 493). Researchers asking individuals what has been "useful" in dealing with stressful work situations (Burke & Belcourt, 1974) or how they "coped" may invoke only effective strategies. Coping measures asking what respondents "did to try to feel better or handle the problem" (Schwartz & Stone, 1993, p. 50) or how they "reacted" to a stressful situation at work (Havlovic & Keenan, 1991; Latack, 1986) do not confound coping and its effectiveness.

## WORKPLACE INTERVENTIONS FOR CHRONIC WORK STRESS

What are organizations actually doing to alleviate the negative outcomes of stress in the workplace? Typically, the intervention research focuses either on the stressor or on individuals' coping efforts. Research that focuses on the stressor supports the notion that work stress can be

avoided or prevented by eliminating the source of stress. Such primary prevention makes individual coping efforts unnecessary. Research that focuses on individual coping strategies includes secondary preventive intervention, i.e., educating individuals about how to cope with workplace stressors. Tertiary preventive intervention provides assistance to those individuals who have not been able to effectively cope with a stressor and are therefore suffering from strain. Secondary and tertiary preventive interventions are the most frequently practiced interventions (Cooper & Cartwright, 1994; Murphy, 1992). Drawing on Murphy's (1992) description of these types of preventive interventions in organizations, we argue that the best approach to combat the effects of stress in the workplace combines all three strategies.

### Tertiary Preventive Interventions

Organizations use tertiary interventions (e.g., employee assistance programs) to help those individuals who have not been able to effectively cope with workplace stressors and are suffering from worker strain (Murphy, 1992). The original intent of such programs was to help employees combat drinking problems. In recent years, a wider range of employee difficulties have been addressed in employee assistance programs, such as drug abuse and family violence (Murphy, 1992). Irrespective of whether employee assistance programs are provided by outside sources or are "in house," most large companies now have them in some form. However, their growth seems to be slowing and they are scarce in smaller businesses (Berridge & Cooper, 1993). Employee assistance programs should be regarded as invaluable sources of information regarding workplace stressors. However, this knowledge and its potential uses are often overlooked (Berridge & Cooper, 1993; Murphy, 1992). For example, employee assistance programs could be used to provide feedback about the effectiveness of programs designed to reduce stressors.

The question remains as to whether or not employee assistance programs are effective in alleviating employee strain. General Motors has claimed their programs have saved \$37 million dollars annually (Feldman, 1991). However, employee assistance programs are often not subjected to controlled scientific evaluation, and debate continues about the best way to evaluate such programs.

### Secondary Preventive Interventions

Secondary-level preventive interventions (e.g., individual stress management training) teach employees to recognize workplace stressors and early signs of their health effects. Employees are taught how to

identify and cope with workplace stressors and are trained in ways to reduce arousal (e.g., biofeedback, relaxation techniques). Programs are typically restricted to white collar occupations and to volunteers. They are not targeted to workers identified with stress difficulties (e.g., Murphy, 1992; Murphy & Sorensen, 1988). Evaluations of the effectiveness of stress management programs are plagued with problems. For example, because the effects of the training may not last (Ganster, Mayes, Sime, & Tharp, 1982; Hurrell, 1995), short-term follow-up is insufficient (Ivancevich, Matteson, Friedman, & Phillips, 1990; Murphy, 1992).

### Primary Prevention

Primary prevention in the workplace involves the reduction or elimination of the actual stressors. A concurrent decline or elimination of employee strain should also result. Unfortunately, the popularity of stress management programs suggests that organizations are more inclined to teach employees to cope with stress than to remove the sources of employee stress (Cooper & Cartwright, 1994). Due to the difficulties and expense involved, employees rather than the organization itself are the preferred targets of change.

However, a study by Theorell et al. (1991) dramatically demonstrates the need for primary prevention on the job. For 5 years they followed 79 men who had suffered a heart attack before the age of 45; 49 survived with no further cardiac complications, 17 survived another attack or had corrective bypass surgery, and 13 died as a result of ischemic heart disease. After controlling for cardiovascular health, it was found that the 13 participants who died had all returned to a work environment that had not changed in terms of the demands placed on the workers or the opportunity for worker control over these demands. These data dramatically testify to the need for primary prevention involving organizational change.

Reviews of the literature on primary prevention (Burke, 1993; Murphy, 1992) suggest that it is effective. Specifically, controlled outcome studies that have brought about changes in job design show beneficial effects. Individuals with greater participation in decision making experienced less role conflict and role ambiguity than those with less decision latitude (Jackson, 1983). Schaubroeck, Ganster, Sime, and Dittman (1993) demonstrated empirically that when supervisors are trained to clarify their subordinates' roles, role ambiguity is decreased significantly. A job redesign study that increased worker autonomy reduced employee strain as long as 18 months after the study (Wall & Clegg, 1981). Wall et al. (1990) showed that giving workers greater control resulted in in-

creased performance and psychological well-being. Campion and McClelland (1991) found that enlarged jobs, where two jobs are combined into one, resulted in greater job satisfaction and less mental underload. In addition, in a long-term follow-up, Campion and McClelland (1993) discovered that it is only when the combined jobs resulted in knowledge enlargement, not merely task enlargement, that the benefits continue. Increased control over work schedules with flexitime was studied by Pierce and Newstrom (1983). A positive relationship was found between aspects of work schedule flexibility and employee behavior variables such as employee performance and absenteeism. However, the relationship was not as simple for employee attitude variables. Employees' perceptions of control over their schedules mediated the positive relationships between aspects of work schedule flexibility and employees' attitude variables, such as intrinsic and extrinsic job satisfaction and organizational commitment.

Although primary prevention holds the greatest promise for combating work stress, some workplace stressors cannot be altered (e.g., involvement in a hospital emergency ward), and therefore not all employees can benefit from such initiatives. Thus, attempts to facilitate coping with chronic work stressors should allow employees access to primary, secondary, and tertiary interventions. This is consistent with Ganster et al.'s (1982) suggestion that primary preventive interventions should be supplemented with secondary preventive interventions such as stress management programs. Also, suggestions of conducting stress audits to determine where the problems are before any intervention is undertaken should be heeded (Cooper & Cartwright, 1994).

### CONCLUSION

Our review of research on coping with work stress reveals that the work stressor itself is often unspecified, the major focus being on the relationship between individual coping efforts and resulting strain. Before practical use can be made of this body of work, researchers must attend to specific stressor-strain relationships and examine the moderating effects of individual coping strategies. In addition, because coping strategies are assumed to ultimately affect the stressors themselves, studies examining the impact of coping efforts on the original stressful situation are necessary (Edwards, 1992a,b). In general, longitudinal approaches, with stressors, measured at two points in time, are needed.

We have also observed that some individual efforts to cope with workplace stressors are not helpful in reducing strain. Indeed, some

coping strategies have the reverse effect. For example, many emotion-focused and avoidance coping strategies are associated with greater strain. Also, as Violanti (1992) found in his study of police recruits, even strategies involving self-control can be associated with greater strain. The limitations of individual coping efforts are further reinforced by the fact that secondary and tertiary preventive interventions may not be effective in the long term.

In terms of future research, it is necessary to restate a critical difference between primary, secondary, and tertiary preventive interventions. Secondary and tertiary preventive interventions implicitly assume that the problem resides at the individual employee level (see Hurrell, 1995): If only we could help employees be more hardy, ruggedly individualistic, or even religious (Beehr, Johnson, & Nieva, 1995), the problem would "go away." Preselection (more accurately pre-exclusion) or individual counseling would help employees avoid chronic work stress. By itself this approach is practically and ethically questionable. A more desirable approach would be to use primary prevention to help employees change their work environments. Initial findings suggest such an approach is likely to be more successful (Hurrell, 1995). Further, an approach combining all three preventive interventions should be used.

Finally, any research examining chronic work stressors or coping with work stress must attempt to overcome, or at the very least acknowledge, certain methodological problems. We have identified a host of methodological issues, many regarding the actual measurement of chronic stressors and coping strategies. Issues as simple as how one asks individuals to report their experiences of work stressors or how they "coped" can have serious implications. The duration of a workplace stressor, its time of onset, and the likelihood of its recurrence must all be taken into account before a stressor can be defined as acute or chronic. This is critical because the same stressor can be acute in one workplace but chronic in another. Researchers must also be cautious not to confuse a coping strategy with its effectiveness. Asking individuals how they coped or what was useful may yield only those coping efforts people found effective. Instead, researchers should ask for individuals' reactions to stressful situations or what they did to try to feel better.

In conclusion, there is much room for future research examining workplace stressors and coping with work stress. Future researchers must attempt to unite the two literatures as well as evaluate organizational preventive interventions incorporating primary prevention with secondary and tertiary preventive efforts.

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